Mission Applications Branch Code 583
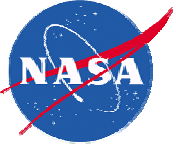
Branch Technical Status Report

May 26, 2004

Presentations

- MAB Project Status Overview

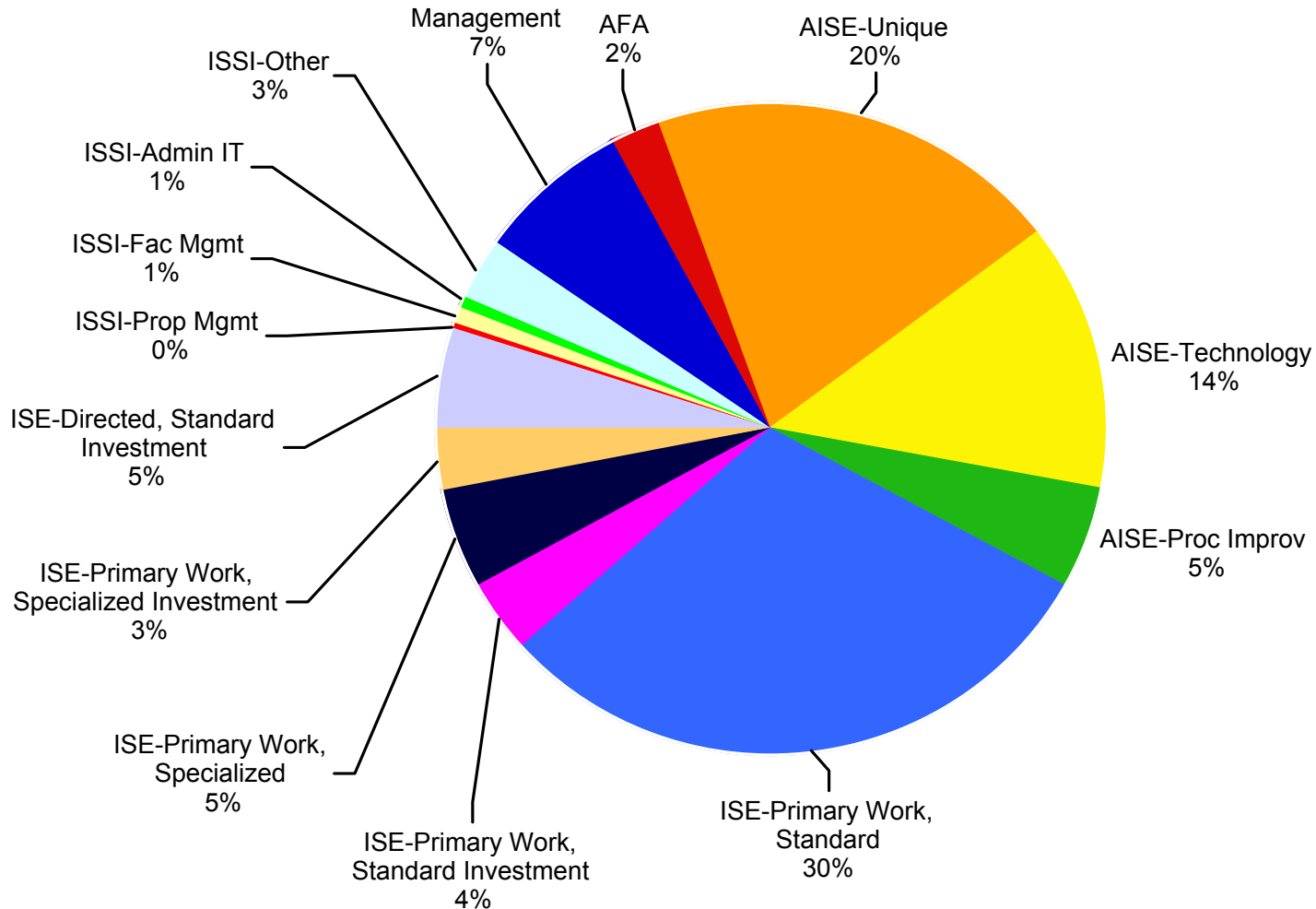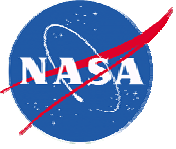 Henry Murray

MAB Project Status

Henry Murray

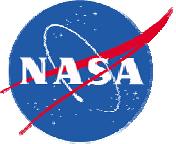# Business Type Distribution

Support Type Distribution

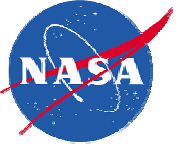| Activity	Mar	Apr	May	ISD Date	CS	ΔCS	SSC	Comments
ESDIS								
EOS Aura FDS	G	G	G	4/03	1.0		0.5	Aura FDS Release D.1 promoted to operations 4/12/04. D.1 supported several simulations and Mission Rehearsal 3. Release D.2 promotion expected 6/7/04
EOS Aura MMS	G	G	G		0.6		0.5	EMOS Build 15.x with PDB 5A supported Spacecraft Interface Test 5 on 4/19/04, and Mission Readiness Tests 2, 3 and 4.
ESMO	G	G	G		0.7		0.3	Constellation Coordination System Release 1 operational 5/1/04. Release 2 scheduled for acceptance testing in August.
ASSET	Y	G	G	9/02	0.1		0.4	Completed interface test with Terra EMOS 5/18/04. Met with Aura FOT to define ASSET SRR Tool requirements.
SWIFT								
BAT FSW Testing	G	G	G		1.0			Documenting Build 4.1 test results and retesting problem reports.
Science Center	G	G	G		0.7			Swift Science Center Build 8 delivered 5/8/04.
BAT I&T	G	G	G	6/03	1.0			Swift spacecraft thermal vacuum pumpdown testing began 5/17/04. Thermal vacuum testing scheduled to complete by 6/5/04.
Code 900								
ESMF	G	G	G	12/02	0.5			ESMF development teams responded to request for schedule/manpower estimates for remaining work. Jim Fischer provided manpower estimates for CAN3 work and resources required to support the completion of ESMF.

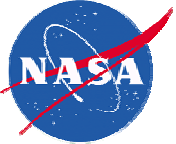| Activity	Mar	Apr	May	ISD Date	CS	△CS	SSC	Comments
HST								
Mgmt/Operations	G	G	G		1.6		0.5	Provided technical direction to MOMS support contractor. Supported HST Project Office technical review meetings.
Tools	G	G	G		1.0		0.5	Continued sustaining engineering for the SCAT software. HST FOT Request System Release 1.1 release to operations 4/21/04.
STScI	G	G	G		0.8		0.3	ST Imaging Spectrograph Anomaly Resolution Board (ARB) presented final recommendations 5/19/04. ARB identified operational changes and recommendations for future use of current lamp and redundant lamp.
Code 600								
LEP	G	G	G	8/01	1.0		0.4	Delivered enhancement to Polar/Wind/Geotail LZP statistical reporting software. Continued implementation of object-oriented magnetometer data analysis software for ST5.
SPDF	G	G	G	7/02	2.0			Continued implementation and testing of FTP Search web services in support of virtual observatory prototype. Provided demo to code 632 on web services for searching scientific data on public FTP servers.
Stellar Imager	G	G	G	5/02	0.2			Preparing Stellar Imager paper to be presented at AAS SPIE conference in June (Code 681 travel).
Mission Services								
SWSI	G	G	G	8/01	0.0	- 0.1		Development effort complete. NENS contractor responsible for sustaining engineering.
McMurdo GS Upgrade	G	G	G	3/04	0.8	- 0.1		Provided support for the installation and testing of new hardware and software as part of the McMurdo Ground Station Raid Demonstration Project. Support complete as of 5/31/04.

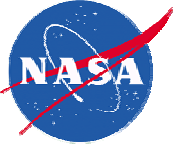| Activity	Mar	Apr	May	ISD Date	CS	△CS	SSC	Comments
Flight Dynamics								
Goddard Mission Analysis Tool	G	Y	Y		4.3	+ 0.2	0.5	Flagged as yellow due to schedule delays as a result of complex design issues. Working with code 595 customer to replan remaining builds.
TRMM Automation	G	G	G		0.3		0.5	First delivery of Eclipse system, second delivery of low fidelity simulator (MPS), and second delivery of TRMM front-end all were delivered in early may. Eclipse release with GMSEC API and MOPSS Scenario Scheduler scheduled for late June.
Formation Flying Testbed	G	G	G		0.1		0.3	Working issues with STK.
PFFIAT	G	G	G		1.0			Continued implementation of capabilities for next release. Completing system documentation.
GTDS UI	G	G	G		1.3		0.4	Continued enhancements of user interface for the Goddard Trajectory Determination System to execute on Windows, Unix, and Mac platforms.
NASA SW Initiative								
CMMI/EPG	G	G	G	8/03	0.9		2.5	Participated in two face-to-face meetings for NASA Procedural Requirements (NPR) software document. NPR placed into NODIS for agency review 5/25/04. Presenting "Using CMMI for Improvement of GSFC" as part of Systems Engineering Lecture Series 6/1/04.
SWG Metrics	G	G	G	3/02	0.2		0.5	Completed draft of recommendations for charts and measures to satisfy HQ status and trending information needs; results presented to SWG chairs and Leadership Team.
SWG	G	G	G		0.1		0.5	Completed SCAMPI Lead Appraiser training class. Attended two-day meeting at HQ for rapid development of NASA Procedural Requirement (NPR) for software. Completed draft metrics section of NPR.

Activity	Mar	Apr	May	ISD Date	CS	∆CS	SSC	Comments
GMSEC								
Planning & Scheduling	G	G	G		1.9	- 0.1	1.0	Presented scenario scheduler design at TRMM Reengineering Automations Systems Design Review 4/28/04.
Architecture/Lab	G	G	G		2.2	- 0.1		Continuing application of GMSEC architecture components applied to TRMM reengineering and SMEX reengineering efforts.
SIMSS	G	G	G		1.0		1.8	Implementing GLAST PSS. Supporting GMSEC middleware testing.
Trend/Event Analysis	G	G	G		0.7		3.5	SOHO ITPS Release 3 delivered on 4/30/04. Wind/Polar Release 1 scheduled for June delivery.
Flight Dynamics Automation	G	G	G		0.7	+ 0.2	0.3	Continued implementation and integration of AutoProducts and AutoFDS automation frameworks; targeting re-engineered SMEX MOC.
MADECC	Y	Y	G		0.1		0.1	Task scheduled to start 6/15/04.
Middleware	G	G	G		0.1	- 0.2	0.3	Resolving anomalies with middleware benchmarking program. Working with SIMSS to define data & messages needed to perform Benchmark testing.
Technology								
AMPS	G	G	G		0.3		2.5	Supported ARC mid-term review with ESTO to develop a Coordinated Science Planning System for Constellations.
Adaptive Sensor Fleet	G	G	G		0.7	+ 0.2		Design Review held 4/1/04. Completing detailed design documentation. T. Sardella transitioning to project to support sensor platform communications.
URDU	G	G	G		0.7			Delivered the URDU client to Code 582 for testing. Resolving Code 582 network connection problems.

Personnel Transitions

Person	From		To		FTE
	Project	Business Type	Project	Business Type	
Tom Sardella	McMurdo GS Upgrade	AISE - Process Improvement	ASF	AISE - Technology	0.1
Tom Sardella	SWSI	ISE – Primary, Standard	ASF	AISE - Technology	0.1
Tim Esposito	STK Scheduler Evaluation	ISE - Primary, Standard Invest.	Flight Dynamics Automation	AISE - Unique	0.1
Tim Esposito	GMSEC Architecture	AISE - Technology	Flight Dynamics Automation	AISE - Unique	0.1
Waka Waktola	GMSEC Middleware	AISE - Technology	GMAT	AISE - Unique	0.2

Acronyms

AAS	American Astronomical Society
AMPS	Automated Mission Planning System
ANSR	Alert Notification System Router
ASSET	Advanced SSR Scheduling Tool
BAT	Burst Alert Telescope
CAN	Cooperative Agreement Notice
CMMI	Capability Maturity Model - Integrated
DR	discrepancy report
EMOS	EOS Mission Operations System
EPG	Engineering Process Group
EOC	EOS Operations Center
ESMF	Earth System Modeling Framework (931)
ESMO	Earth Science Mission Operations
FDAB	Flight Dynamics Analysis Branch (595)
FDS	Flight Dynamics System
FFTB	Formation Flying Testbed
FOR	Flight Operations Review
FOT	Flight Operations Team
FSW	flight software
GMAT	Goddard Mission Analysis Tool
GMSEC	GSFC Mission Services Evolution Center
GS	ground system
GTDS	Goddard Trajectory Determination System
HST	Hubble Space Telescope
ICD	Interface Control Document
ITPS	Integrated Trending and Plotting System
I&T	integration and test

LEP	Laboratory for Extraterrestrial Physics (696)
MADECC	Multiple Autonomous Discrete Event Controllers for Constellations
MMS	Mission Management System
MOMS	Mission Operations and Mission Services
NICMOS	Near Infrared Camera and Multi-Object Spectrometer
NPR	NASA Procedural Requirement
PFFIAT	Precision Formation Flying Integrated Analysis Tool
P&S	planning and scheduling
SAC	sensor analysis calibration
SCAMPI	Standard CMMI Appraisal Method for Process Improvement
SCAT	Software Configuration Automation Tool
SDP	science data processing
SPDF	Space Physics Data Facility (632)
SIMSS	Scalable Integrated Multi-Mission Simulation Suite
SSC	Satellite Situation Center
SSC	Swift Science Center
STIS	space telescope Imaging Spectrograph
STScI	Space Telescope Science Institute
SWG	Software Working Group
SWSI	Space Network Web Services Interface
UI	user interface
URDU	User-Interactive Requirements Development Utility